IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	: 10/528,118
Applicant	: Norbert HOLL
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APPELLANT'S BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

Sir:

The following comprises Appellant's Brief on Appeal from the Office Action, dated February 18, 2009, of claims 1-23, the claims having been rejected a total of three times, the prior rejections being dated April 7, 2008 and October 31, 2008. This Brief is being filed on September 18, 2009, with the required brief fee set forth in 37 C.F.R. § 41.20(b)(2). Appellant hereby petitions for a one-month extension of time under 37 C.F.R. § 1.136(a) and submits the required fee herewith. Therefore, this Brief is timely filed on September 18, 2009, within three months of the June 18, 2009, Notice of Appeal.

I. REAL PARTY IN INTEREST

The real party in interest is Giesecke & Devrient GMBH, the assignee of this application.

II. RELATED APPEALS AND INTERFERENCES

There are no other prior or pending appeals, interferences or judicial proceedings known to Appellant, the Appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

This application was filed with claims 1-22. Claim 23 was added by Preliminary Amendment on March 16, 2005. Claims 1-23 are pending. Claims 1-12 stand rejected under 35 U.S.C. § 101 and Claims 1-23 stand rejected under 35 U.S.C. § 103(a) per the Office Action dated February 18, 2009.[1] The rejections of claims 1-23 as set forth in the February 18, 2009, Office Action are being appealed.

IV. STATUS OF AMENDMENTS

Claims 1-23 were amended according to 37 C.F.R. § 1.116(b)(2) on August 13, 2009. By that Amendment claims 1-12 and 23 were amended to address the rejection under 35 U.S.C. § 101 and to place the claims in better form for consideration on appeal. The preamble of claims 13-22 were amended in form only. No other claim amendments have been filed since the Final Office Action dated February 18, 2009.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides novel and nonobvious computer-implemented methods and systems for checking documents of value (e.g., bank notes) for signs of use (e.g., soiling and spots). (Substitute Specification at page 2, lines 18-21; page 5, lines 16-17 (hereinafter citations to the Substitute Specification are made as "Appln. p. #, lns. ##")). As bank notes are used in commerce, they are often subjected to both ordinary wear and tear and intentional abuse. This ordinary wear and tear and intentional abuse often causes signs of use on the bank notes. For example, a brand new one dollar bill will look and feel different from a one dollar bill that has been in circulation for five years. At some point, a bank note that has been in circulation will incur such signs of use that it should be removed from circulation. The current invention is

1. While the Final Office Action dated February 18, 2009 indicates that only claims 1-22 have been finally rejected, the Appellant's representative contacted the Examiner and confirmed that it was the Examiner's intention to have Finally rejected claim 23 as well. In the interest of advancing this appeal, the Appellants submit this brief as if the Examiner had not erred.

specifically directed to computer-implemented methods and systems for determining when documents of value are fit for circulation.

Prior to the present invention, various methods and systems existed for determining when documents of value were fit for circulation. Generally, these methods and systems illuminated the document of value and measured the amount of light reflected off of and transmitted through the document of value. (Appln. p. 1, ln. 23 – p. 2, ln. 2). However, the prior methods and systems each suffered from weaknesses.

One problem with the methods and systems of the prior art was that they required uniform illumination of the bank notes from both sides of the document. (Appln. p. 2, lns. 3-4). That is, the illumination profile of the light sources that were used to illuminate both sides of a bank note had to be identical. (Id. at 5-6). If the illumination profiles were not identical, the measurements of the light reflected off of and transmitted thorough the bank note would be faulty and unreliable. (Id. at 6-14). Because the determination of whether or not to keep bank notes in circulation is dependant upon these measurements, faulty measurements would ultimately lead to faulty results and increased costs.

Additionally, the methods and systems of the prior art failed to reliably compensate for fluctuations in the thickness of documents of value. The amount of light reflected off of and transmitted through a bank note varies greatly with the thickness of the bank note paper. (Appln. p. 1, lns. 18-22). While soiling and spots can cause variations in the thickness of bank note paper, other causes of variations of bank note paper thickness are unrelated to wear and tear from circulation. (Id.). For example, different batches of bank notes may have different paper thicknesses. (Id.). Additionally, within the area of a single bank note there may be different levels of paper thickness, e.g., watermarks. (Id.). Prior art methods and systems failed to function independent of the thickness of the bank note paper. Thus, prior art methods and systems were more likely to confuse non-circulation related variations in bank note paper thickness with soiling and/or spots.

The present invention addresses the problems with the prior art and the need for more accurate methods and systems for checking documents of value. Claims 1 and 13 are the independent claims that are being appealed. Claims 1 defines a method for checking a document

of value. Claim 13 defines a checking device for checking documents of value. The subject matter of each of the independent claims is set forth below.

Claim 1 is directed to a method for checking a document of value for soiling and spots. (Appln. p. 1, lns. 10-11; Appln. p. 3, lns. 16-22). The method includes a step of illuminating, with an illumination system, the document of value with an intensity (I_B) in at least a partial area. (Appln. Figs. 1 and 2; Appln. p. 6, lns. 9-23). The method further includes a step of capturing, with a detector system, at one or more measuring places, the intensity (I_T) of the light transmitted through the partial area of the document of value and the intensity (I_R) of the light reflected, or remitted, by the partial area of the document of value. (Appln. p. 7, lns. 27-30). The method further includes a step of summing the intensities of the transmitted and the reflected light for each measuring place in order to obtain a sum intensity value. (Appln. p. 3, lns. 9-13). The method further includes a step of comparing the sum intensity value for each measuring place to a predetermined standard value. (Appln. p. 2, ln. 25 – p. 3, ln. 3).

Claim 13 is directed to a checking device for checking documents of value for soiling and spots. The checking device includes an illumination system. (Appln. p. 2, ln. 30 – p. 3, ln. 3). The illumination system is configured to illuminate a document of value at least in a partial area with an intensity (IB). (Appln. Figs. 1 and 2; Appln. p. 6, lns. 9-23). The checking device further includes a detector system. (Appln. p. 5, lns. 11-15). The detector system is configured to capture from one or more measuring places the light transmitted through the document of value and the light reflected, or remitted, by the document of value. (Appln. p. 7, lns. 27-30). The illumination and detector systems are designed to separately capture the intensity (I_T, I_R) of the transmitted light and of the reflected light. (Id.). The checking device further includes an evaluation unit, in which the intensities of the transmitted and reflected light are summed up for each measuring place, so that for each measuring place precisely one sum intensity value is obtained. (Appln. p. 2, ln. 30 – Appln. 3, ln. 3; Appln. p. 3, lns. 9-13). Each obtained sum intensity value is compared to a predetermined standard value. (Appln. p. 2, ln. 25 – p. 3, ln. 3).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following issues are presented by this appeal:

(1) Whether claims 1-12 are directed to patentable subject matter under 35 U.S.C. § 101.

(2) Whether claims 1-23 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,101,266 to Laskowski et al. ("Laskowski") and U.S. Patent No. 4,352,988 to Ishida et al. ("Ishida").

VII. ARGUMENT

Claims 1-12 Are Directed to Patentable Subject Matter.

As discussed above in Section IV. STATUS OF AMENDMENTS, claims 1-12 and 23 were amended according to 37 C.F.R. § 1.116(b)(2) to narrow the issues for appeal and to place the claims in better form for consideration on appeal. The Examiner indicated via telephone on August 17, 2009, that the amendments would be entered. Additionally, on September 18, 2009 the Examiner's Supervisory Patent Examiner confirmed that the amendment would be entered. These amendments, place claims 1-12 and 23 within the statutory subject matter of 35 U.S.C. § 101. Namely, claim 1, upon which claims 2-12 depend, recites that the step for illuminating is performed with an illumination system and the step of capturing is performed with a detector system. Thus, the method is sufficiently tied to a machine and complies with the requirements of 35 U.S.C. § 101. For this reason, this rejection is improper and should be reversed.

Claims 1-23 Are Not Unpatentable Over Laskowski and Ishida.

Claims 1-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over a combination of Laskowski and Ishida. As set forth in detail below, the Examiner's rejection to claims 1-23 is improper for a number of reasons and should be reversed.

A rejection under 35 U.S.C. § 103 requires a finding that "all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art." KSR International Co. v. Teleflex Inc., 550 U.S. 398, 415-416 (2007) (emphasis added); See MPEP §

2143.02. Here, the combination of the references: do not, together or singly, disclose or suggest each and every feature of claims 1-23; cannot be combined in a predictable manner; and would not have been so combined without the benefit of impermissible hindsight.

What a reference teaches is a question of fact to be determined in light of how the skilled artisan would understand the reference. See Graham v. John Deere Co., 383 U.S. 1, 17 (1966). Further, references must be considered as a whole for the purposes of obviousness. See W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1550 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). The Examiner has misstated the teachings of both Laskowski and Ishida and further did not consider the references as a whole, in an improper effort to coble together the limitations of the present invention. The Appellant now describes the cited references to help clarify both the differences between the teachings of the prior art and the level of confusion found in the Examiner's rejections.

Laskowski is generally directed to an apparatus and method of determining the conditions and/or values of bank notes. See Laskowski Abstract. More specifically, Laskowski discloses determining the condition and/or value of a bank note based on measurements of intensities of light that are either reflected off of or transmitted through a bank note. See Laskowski col. 3, ln. 66 - col. 4, ln. 9. The measurement of light reflected off of a bank note is referred to as a reflectance value. Id. The measurement of light transmitted through a bank note is referred to as a transmission value. Id. These measurements are used to create a correlation between the sensed value set and a stored value set. See Laskowski col. 4, lns. 18-39. Based on the level of correlation, the denomination and orientation of the observed bank note can be identified. See Laskowski col. 4, lns. 29-39.

The Examiner points to the following language, from Laskowski, in support of the rejection:

> It should be appreciated that alternative embodiments that make determinations of note conditions may due so using spot sensing assemblies similar to spot sensing assemblies 18. Other embodiments may have fewer radiation emitters such as the single infrared type emitter discussed in the foregoing example. Likewise, other embodiments may have different or other types of radiation emitters and sensors. Embodiments may also be specifically adapted to determine at least one note condition without determining note type. Some embodiments may include emitters and sensors which sense transmission and reflectance properties over test spots that

> are either longitudinally and/or transversely elongated. These may include test spots that are elongated over substantial portions or even the entire width or length of a note. *Other alternative embodiments may sense conditions only in selected regions of notes where the properties of reflectance, transmission or both, are particularly indicative of conditions to be determined.* The circuitry of alternative embodiments may be operative to sum or average transmission and reflectance values as well as to apply weighting factors to such values which result from a combination thereof over one or more test spots. Finally, alternative embodiments may operate in combination with the note type determining sensors and circuitry as previously described, or may comprise separate sensors and circuitry.

See Laskowski col. 17, lns. 8-32 (emphasis added). However, this language cannot support the conclusion that the claims would have been obvious because it merely discloses, with no undying support or enabling disclosure, that various alternative embodiments may have circuitry that is operative to sum or average transmission and reflectance values. There is no explanation why you would sum either value nor what conditions could be identified by doing so. This general statement lacks specific context regarding the detection of soiling and/or spots on a bank note, which is focus of the current application. However, Laskowski does specifically address the detection of soiling and/or spots on a bank note at column 9, lines 49-58. In this section Laskowski states:

> Calculating the transmission and reflectance values separately has the advantage that the individual values can be analyzed individually by the control circuit in accordance with its programming. This may be preferred in some embodiments. For example, high correlation for overall reflectance but not transmission may be indicative of some quality or condition of the note that may warrant taking it out of circulation. This may include for example that the note is worn or soiled, or that it is a double note in which two genuine notes are moving in overlapped relation.

See Laskowski col. 9, lns. 49-58 (emphasis added). That is, Laskowski expressly states that it is advantageous and preferred for the reflectance and transmission values to be analyzed individually and not as a summed value when assessing the level of soiling and spots in a bank note. Laskowski specifically says not to sum transmission values. Thus, Laskowski, in the context of determining soiling and spots in a document of value, clearly teaches away from "for each measuring place the intensities of the transmitted and the reflected light are summed up to obtain a sum intensity value and the sum intensity value for each measuring place is each compared to a predetermined standard value," as is recited in claim 1 (and similarly recited in

claim 13). Moreover, the skilled person viewing Laskowski as a whole would not understand that it teaches summing transmission values at all.

Ishida is generally directed to an apparatus for sorting sheets of bank notes into various categories, such as: effective, ineffective, and damaged. See Ishida col. 1, lns. 1-23. Ishida teaches that the entire sheet of bank notes is entirely irradiated and the light reflected off of and transmitted through the bank note is detected. See Ishida col. 1, ln. 55 – col. 2, ln. 12. The values resulting from the detected light are fed into integrators that collect the values for a predetermined period of time. See Ishida col. 3, ln. 61 – col. 4, ln. 5. Once the predetermined period of time passes, the collected values are fed into an adder which sums the values. See Ishida col. 4, lns. 29-31. This summed value is fed into a comparator where it is compared to a reference signal in order to categorize the illuminated sheet of bank notes. See Ishida col. 4, lns. 31-38.

Claim 1:

The Examiner's rejection of claim 1 is improper and should be reversed. The Examiner admits that Laskowski "fails to specifically teach the sum intensity value of each measuring place is each compared to a predetermined standard value." See Final Office Action dated February 18, 2009 at p. 4. Rather, the Examiner relies on Ishida to teach this limitation. Id. However, Ishida fails to teach the limitations of "for each measuring place the intensities of the transmitted and the reflected light are summed up to obtain a sum intensity value and the sum intensity value for each measuring place is each compared to a predetermined standard value" as recited in claim 1.

The system of Ishida fails to disclose the above recited claim limitations. Specifically, Ishida discloses that the values which represent (1) the light reflected off of the front of the entire sheet of bank notes and transferred therethrough, and (2) the light reflected off of the back of the entire sheet of bank notes and transferred therethrough are respectively summed. See Ishida col. 4, ln.62 – col. 5, ln. 6. That is, the values are summed for the entire sheet, not for each measuring place, as is required by claim 1. For at least this reason Ishida fails to cure the admitted defect of Laskowski.

Moreover, even if Ishida did cure the admitted defects of Laskowski, which it does not, one of ordinary skill in the art would not have combined the teachings of the cited prior art because Laskowski teaches away from summing the intensities of the transmitted and the reflected light for each measuring place. It is improper to combine references where the references teach away from their combination. See In re Grasselli, 713 F.2d 731, 743 (Fed. Cir. 1983). As discussed above, Laskowski affirmatively states that it is advantageous and preferred for the reflectance and transmission values to be analyzed individually and not as a summed value when assessing the level of soiling and wear in a bank note. Thus, one of ordinary skill in the art would not have combined the alleged teachings of Ishida and Laskowski when creating a method and/or system for assessing the level of soiling and wear in a bank note. To combine the cited prior art references in contradiction to the teachings of Laskowski is an act of impermissible hindsight by the Examiner. For this additional reason the Examiner's rejection is improper and should be reversed.

Thus, for the foregoing reasons, Appellant submits that the Examiner's contentions are in error. Accordingly, Appellant requests that the rejection be withdrawn and that claim 1 be allowed. Likewise, because claim 1 is allowable, claims 2-12 and 23, which depend from claim 1, should also be allowed. Thus the rejection should be reversed.

Claim 2:

Claim 2 is allowable because it depends from claim 1, as discussed above, and for the following additional reasons. Claim 2 recites the limitations of claim 1, as discussed above, and further includes the limitation of "wherein the intensity values (I_T, I_R) captured from the measuring places (2) are corrected before the summation for compensating locally differing measuring conditions." The Examiner cites to Laskowski col. 17, lns. 17-32 as disclosing the afore recited limitation. However, nowhere in this portion of Laskowski is any form of value correction described.

Further, while Laskowski does disclose that "[i]n the calibration mode the optical sensors and electronic subassembly 120 is operative to adjust the amount of radiation generated by each of emitters to produce a preset output. This ensures that the level of radiation produced by each

of the emitters is sufficient to correlate accurately with the stored value sets." See Laskowski col. 23, lns. 60-67. This type of corrective adjustment to the emitters takes place prior to the capture of the intensity values of the present invention, and in no way discloses correcting the values to compensate for locally differing measuring conditions. The corrective measures of the current invention are not tied to the emitters, but rather are conducted after capture of the intensity values by applying a mathematical formula, for example: $I_{RK}(x) = a(x) * (I_R(x) - I_{RD}(x))$. (Appln. p. 8, lns. 1-17).

> Here $I_{RK}(x)$ and $I_{TK}(x)$ are the corrected intensity values. The values a(x) and b(x) are place-dependent correction factors for the reflection or the transmission as to compensating fluctuations in the illumination profile produced by the illumination device 7 as well as for compensating the sensitivities of the individual detector elements at the different places x. The values $I_{RD}(x)$ and $I_{TD}(x)$ are dark current intensities. They are measured intensity portions, which are caused by dark currents of the respective detector elements at the individual places x.

Id. The cited references fail to disclose any sort of mathematical correction to the intensity values, which is based on the location of the performance of the method/system. For this additional reason the Examiner's rejection of claim 2 is improper and should be reversed.

Claim 3:

Claim 3 is allowable because it depends from claims 1 and 2, as discussed above, and for the following additional reasons. Claim 3 recites the limitations of claims 1 and 2, as discussed above, and further includes the limitation of "wherein the correction compensates for local intensity fluctuations in illumination that occur during measuring." The Examiner cited to the identical portion of Laskowski, as was discussed above with regard to claim 2, as disclosing this limitation. Again neither this portion of Laskowski, nor any other portion of the cited art, discloses the corrective nature of the claim limitation. For this additional reason the Examiner's rejection of claim 3 is improper and should be reversed.

Claim 4:

Claim 4 is allowable because it depends from claims 1 and 2, as discussed above, and for the following additional reasons. Claim 4 recites the limitations of claims 1 and 2, as discussed above, and further includes the limitation of "wherein the correction compensates for locally differing detector specifications." The Examiner cited to Laskowski Fig. 2 Reference No. 22 as disclosing this limitation. Fig. 2 is an isometric schematic view of three spot sensing assemblies sending test spots on a moving note. See Laskowski col. 5, lns. 5-6. Reference No. 22 is a transmission detector. See Laskowski col. 6, lns. 60-62. The mere existence of a transmission detector in no way discloses the subject matter of the afore recited limitation. For this additional reason the Examiner's rejection of claim 4 is improper and should be reversed.

Claim 5:

Claim 5 is allowable because it depends from claims 1, 2, and 4, as discussed above, and for the following additional reasons. Claim 5 recites the limitations of claims 1, 2, and 4, as discussed above, and further includes the limitation of "wherein each captured intensity value (I_T, I_R) is reduced by a dark current measuring value (I_{TD}, I_{RD}) determined for the respective measuring place (2) before the summation." The Examiner cited to Laskowski col. 10, lns. 1-3 as disclosing the afore recited limitation. However, this portion states only that "sensed and stored value sets are generated and correlation values may be tailored to note properties and areas of interest." See Laskowski col. 10, lns. 1-3. Neither the cited portion of Laskowski, nor any other portion of the cited prior art discloses the afore recited limitation. Further, the concept of "dark currents" is wholly absent from both cited prior art references. In contrast to the prior art, the current application describes clearly the concept of dark currents. For example, "[t]he dark current measuring values [of the current invention] are determined by intensity measurings carried out with switched-off illumination. These dark currents are deviations from zero in the individual detector elements of the detector system." (Appln. p. 4, lns. 10-12). These concepts are not found in the prior art. For this additional reason the Examiner's rejection of claim 5 is improper and should be reversed.

Claim 6:

Claim 6 is allowable because it depends from claims 1, 2, 4, and 5, as discussed above, and for the following additional reasons. Claim 5 recites the limitations of claims 1, 2, 4, and 5, as discussed above, and further includes the limitation of "wherein determining the dark current measuring values (ITD, IRD) intensity measurements is effected with switched-off illumination." The Examiner cited Laskowski at col.7, lns. 6-21 as disclosing the afore recited limitation. However, this portion of Laskowski merely discloses the "marquee" style of activating and deactivating the blue, green, and red emitters of the illumination system. See col.7, lns. 6-21. As was stated with regard to claim 5, the concept of "dark currents" is wholly absent from both cited prior art references. Thus, it follows that a determination of dark current measuring values is also lacking from the cited prior art references. For this additional reason the Examiner's rejection of claim 6 is improper and should be reversed.

Claim 7:

Claim 7 is allowable because it depends from claim 1, as discussed above, and for the following additional reasons. Claim 7 recites the limitations of claim 1, as discussed above, and further includes the limitation of "wherein each captured intensity value (IT, IR), is multiplied with a correction factor (a, b) determined for the measuring place (2) of the respective intensity value (IT, IR)." The Examiner cited both Laskowski col. 9, lns. 41-48 and the Ishida Abstract as disclosing the afore recited limitation. However, neither of these portions of the cited art, nor any other portion of the cited art discloses the current limitation. Specifically, the portion of Laskowski cited is directed to the correlation coefficients, which is used to measure the correlation between the sensed value set and the stored value being compared. See col. 9, lns. 18-20; 41-48. In no way does this portion of Laskowski disclose any part of the recited limitation. Additionally, Appellant is puzzled as to why the Abstract of Ishida was cited by the Examiner. There appears to be no rational basis for the citation, and Appellant invites the Examiner to explain her position in full. For these additional reasons the Examiner's rejection of claim 7 is improper and should be reversed.

Claims 13-22:

The Examiner's rejection of claim 13 is improper and should be reversed. As discussed above in regard to the Examiner's improper rejection of claim 1, the Examiner admits that Laskowski "fails to specifically teach the sum intensity value of each measuring place is each compared to a predetermined standard value." See Final Office Action dated February 18, 2009 at p. 4. Again, as discussed above, the Examiner relies on Ishida to teach this limitation. Id. However, Ishida fails to teach the limitations of "an evaluation unit is provided, in which the intensities of the transmitted and reflected light are summed up for each measuring place, so that for each measuring place precisely one sum intensity value is obtained, each obtained sum intensity value is compared to a predetermined standard value." as recited in claim 13. (emphasis added). Because the above recited limitation of claim 13 contains the subject matter discussed above with regard to claim 1, Appellant will not rehash the identical arguments. Rather, Appellant asserts that for all of the reasons discussed above with regard to claim 1, the rejection of claim 13 is improper and should be reversed.

Thus, for the foregoing reasons, Appellant submits that the Examiner's contentions are in error and that the cited prior art fails to render claim 13 obvious. Accordingly, Appellant requests that the rejection be withdrawn that that claim 13 be allowed. Likewise, because claim 13 is allowable, claims 14-22, which depend from claim 13, should also be allowed.

Claim 14:

Claim 14 is allowable because it depends from claim 13, as discussed above, and for the following additional reasons. Claim 14 recites the limitations of claim 13, as discussed above, and further includes the limitation of "wherein the evaluation unit comprises a correction unit for correcting the captured intensity values (I_T, I_R) of the transmitted light and of the reflected light for the measuring places (2) for the purpose of compensating locally differing measuring conditions, as well as an addition unit for adding the corrected intensity values for the measuring places (2)." Because the above recited limitation of claim 14 contains the subject matter discussed above with regard to claim 2, Appellant will not rehash the identical arguments. Rather, Appellant

asserts that for all of the reasons discussed above with regard to claim 2, the rejection of claim 14 is improper and should be reversed.

Claim 15:

Claim 15 is allowable because it depends from claims 13 and 14, as discussed above, and for the following additional reasons. Claim 15 recites the limitations of claims 13 and 14, as discussed above, and further includes the limitation of "wherein the correction unit compensates for local intensity fluctuations in the illumination produced by the illumination system (3, 4) during measuring." Because the above recited limitation of claim 15 contains the subject matter discussed above with regard to claim 3, Appellant will not rehash the identical arguments. Rather, Appellant asserts that for all of the reasons discussed above with regard to claim 3, the rejection of claim 15 is improper and should be reversed.

Claim 16:

Claim 16 is allowable because it depends from claims 13 and 14, as discussed above, and for the following additional reasons. Claim 16 recites the limitations of claims 13 and 14, as discussed above, and further includes the limitation of "wherein the correction unit compensates for locally differing specifications of the detector system (4, 6)." Because the above recited limitation of claim 16 contains the subject matter discussed above with regard to claim 4, Appellant will not rehash the identical arguments. Rather, Appellant asserts that for all of the reasons discussed above with regard to claim 4, the rejection of claim 16 is improper and should be reversed.

Claim 17:

Claim 17 is allowable because it depends from claim 13, as discussed above, and for the following additional reasons. Claim 17 recites the limitations of claim 13, as discussed above, and further includes the limitation of "further comprising a storage device with dark current measuring values (ITD, IRD) stored for different measuring places (2), which correspond to transmission or reflection intensity values captured with switched-off illumination, or with

correction factors (a, b), stored for different measuring places (2), for the transmission or reflection intensity values determined by a measurement." Because the above recited limitation of claim 17 contains the subject matter discussed above with regard to claims 6 and 7, Appellant will not rehash the identical arguments. Rather, Appellant asserts that for all of the reasons discussed above with regard to claims 6 and 7, the rejection of claim 17 is improper and should be reversed.

Claim 23:

Claim 23 is allowable because it depends from claims 1 and 7, as discussed above, and for the following additional reasons. Claim 23 recites the limitations of claims 1 and 7, as discussed above, and further includes the limitation of "wherein each said captured intensity value is reduced by a dark current measuring value." The Examiner failed to address this claim in the Final Office Action dated February 18, 2009. Appellant re-asserts that none of the cited references discloses dark currents in any manner, and thus the references logically fail to disclose the subject matter of the current limitation. For this additional reason the Examiner's rejection of claim 23 is improper and should be reversed.

CONCLUSION

In view of the foregoing, Appellant respectfully submits that all grounds for the rejections of claims 1-23 are unsupportable on the record and thus improper. The Honorable Board is therefore respectfully requested to reverse all grounds of rejection and to direct the passage of this application to issue.

Please charge any fee or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 02-2135.

CONTINGENT AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT AND CONTINGENT PETITION FOR EXTENSION OF TIME

Unless a check for the present Brief on Appeal is submitted herewith for the fee required under 37 C.F.R. §§ 1.192(a) and 1.17(c), please charge said fee to Deposit Account No. 02-2135.

Appellant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 02-2135.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

The following claims are involved in this appeal:

1. A method for checking a document of value (1) for soiling and spots, comprising:

- illuminating, with an illumination system, the document of value (1) with an intensity (I_B) in at least a partial area; and

- capturing, with a detector system, at one or more measuring places, (2) the intensity (I_T) of the light transmitted through the partial area of the document of value (1) and the intensity (I_R) of the light reflected, or remitted, by the partial area of the document of value (1);

wherein

- for each measuring place the intensities of the transmitted and the reflected light are summed up to obtain a sum intensity value and

- the sum intensity value for each measuring place is each compared to a predetermined standard value.

2. The method according to claim 1, wherein the intensity values (I_T, I_R) captured from the measuring places (2) are corrected before the summation for compensating locally differing measuring conditions.

3. The method according to claim 2, wherein the correction compensates for local intensity fluctuations in illumination that occur during measuring.

4. The method according to claim 2, wherein the correction compensates for locally differing detector specifications.

5. The method according to claim 4, wherein each captured intensity value (I_T, I_R) is reduced by a dark current measuring value (I_{TD}, I_{RD}) determined for the respective measuring place (2) before the summation.

6. The method according to claim 5, wherein determining the dark current measuring values (ITD, IRD) intensity measurements is effected with switched-off illumination.

7. The method according to claim 1, wherein each captured intensity value (IT, IR), is multiplied with a correction factor (a, b) determined for the measuring place (2) of the respective intensity value (IT, IR).

8. The method according to claim 7, wherein the correction factors (a, b) are obtained on the basis of the intensity values, which are determined by means of intensity measurements in reference documents.

9. The method according to claim 1, wherein the document of value (1) in a transportation direction (R) is guided past an illumination system (3, 5) and a detector system (4, 6) positioned for this, and with the illumination system (3, 5) at least on one side (13, 14) of the document of value (1) an illumination profile is produced, which extends transverse to the

transportation direction (R).

10. The method according to claim 9, further comprising a plurality of detector elements positioned in a row at right angles to the transportation direction (R), configured to capture the intensity values (I_T, I_R) along a plurality of measuring tracks extending in parallel to the transportation direction (R).

11. The method according to claim 1, wherein the document of value (1) is illuminated from one side (13) and that with a first detector device (8) positioned in the area of the same side (13) of the document of value (1) the intensity (I_R) of the reflected portion of light and with a second detector device (9) positioned in the area of the opposite side (14) of the document of value (1) the intensity (I_T) of the transmitted portion of light is captured.

12. The method according to claim 1, wherein the document of value (1) alternately is illuminated from a first and from an opposite second side (13, 14), and with a detector device (12) positioned in the area of the first side (13) of the document of value (1) correspondingly alternately are captured the intensity (I_T) of the light transmitted through from the second side (14) of the document of value (1) and the intensity (I_R) of the reflected portion of the light incident from the first side (13) on the document of value (1).

13. A checking device for checking documents of value (1) for soiling and spots, comprising

- an illumination system (3, 5), configured to illuminate a document of value (1) at least in a partial area with an intensity (IB);

- a detector system (4, 6), configured to capture from one or more measuring places (2) the light transmitted through the document of value (1) and the light reflected, or remitted, by the document of value;

wherein

- the illumination system (3, 5) and the detector system (4, 6) are designed to separately capture the intensity (I_T, I_R) of the transmitted light and of the reflected light, and

- an evaluation unit is provided, in which the intensities of the transmitted and reflected light are summed up for each measuring place, so that for each measuring place precisely one sum intensity value is obtained, each obtained sum intensity value is compared to a predetermined standard value.

14. The checking device according to claim 13, wherein the evaluation unit comprises a correction unit for correcting the captured intensity values (I_T, I_R) of the transmitted light and of the reflected light for the measuring places (2) for the purpose of compensating locally differing measuring conditions, as well as an addition unit for adding the corrected intensity values for the measuring places (2).

15. The checking device according to claim 14, wherein the correction unit compensates for local intensity fluctuations in the illumination produced by the illumination system (3, 4) during measuring.

16. The checking device according to claim 14, wherein the correction unit compensates for locally differing specifications of the detector system (4, 6).

17. The checking device according to claim 13, further comprising a storage device with dark current measuring values (ITD, IRD) stored for different measuring places (2), which correspond to transmission or reflection intensity values captured with switched-off illumination, or with correction factors (a, b), stored for different measuring places (2), for the transmission or reflection intensity values determined by a measurement.

18. The checking device according to claim 13, further comprising a transportation device that guides the document of value (1) for the purpose of a measurement in a transportation direction (R) past the illumination system (3, 5) and the detector system (4, 6) positioned for this.

19. The checking device according to claim 18, wherein the illumination system (3, 5) produces an illumination profile extending transverse to the transportation direction (R).

20. The checking device according to claim 19, wherein the detector system (4, 6) has a detector device (8, 9, 12), which comprises a plurality of detector elements positioned in a row at right angles to the transportation direction (R).

21. The checking device according to claim 13, wherein the illumination system (3) has an illumination device (7), which illuminates the document of value (1) from a first side (13), and that the detector system (4) has a first detector device (8), which

- is allocated to the illumination device (7),
- is positioned at the same side (13) of the document of value (1) and
- captures the intensity (IR) of the reflected portion of light,

and a second detector device (9), which

- is allocated to the illumination device (7),
- is positioned at the opposite side (14) of the document of value (1) and
- captures the intensity (IT) of the transmitted portion of light.

22. The checking device according to claim 13, wherein the illumination system (5) has

- a first illumination device (10), which is configured to illuminate the document of value (1) at least in a partial area from a first side (13),
- a second illumination device (11), which is configured to illuminate the document of value (1) in the partial area from a second side (14), and
- a control device, which is configured to activate the illumination device (10, 11) in such a way that alternately the first or the second illumination device (10, 11) illuminates the document of value (1),
- wherein the detector system (6) has a detector device (12) disposed on the first side (13) and allocated to the two illumination devices (10, 11), configured to alternately capture

the intensity (I_T) of the light transmitted through from the second side (14) of the document of value (1) and the intensity (I_R) of the reflected portion of the light incident from the first side (13) on the document of value (1).

23. The method of claim 7 wherein each said captured intensity value is reduced by a dark current measuring value.

IX. EVIDENCE APPENDIX

There has been no evidence submitted to or entered by the examiner that is being relied upon by Appellant in this appeal.

X. RELATED PROCEEDINGS APPENDIX

There have been no decisions rendered by a court or the Board in any related proceedings.